

**What is claimed is:**

1. A process for overcoating multicoat color and/or effect paint systems comprising at least one color and/or effect basecoat (A) produced from at least one aqueous basecoat material (A) and at least one clearcoat (B) produced from at least one liquid clearcoat material (B), which comprises
  - (1) applying to the outer surface of the multicoat paint systems by pneumatic spray application the extract of an aqueous basecoat material, substantially or entirely free from opaque pigments, which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the aqueous basecoat materials (A) from which the basecoat (A) was produced,
  - (2) flashing off and/or drying the resulting film (1) without curing it completely,
  - (3) coating the resulting flashed off and/or dried film (2) by pneumatic spray application at a reduced spraying pressure with an aqueous basecoat material which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the aqueous basecoat materials (A) from which the basecoat (A) was produced,
  - (4) flashing off and/or drying the resulting aqueous basecoat film (3) without curing it completely,
  - (5) coating the resulting flashed off and/or dried aqueous basecoat film (4) with at least one liquid clearcoat material, and
  - (6) jointly curing the resulting clearcoat film(s) (5), the aqueous basecoat film (4) and the film (1), and, where appropriate, any further uncured films that are present.
2. The process as claimed in claim 1, wherein the multicoat paint systems were produced by means of wet on wet techniques.
3. The process as claimed in claim 1 or 2, wherein the multicoat paint systems were produced by means of electrostatic spray application (ESTA).
4. The process as claimed in any of claims 1 to 3, wherein the pneumatic spray application in step (3) is conducted at a spraying pressure of from 0.3 to 2.3 bar.

5. The process as claimed in claim 4, wherein the film(s) (2) in step (3) is (are) overcoated with a spraying pressure of from 0.3 to 2 bar.
6. The process as claimed in any of claims 1 to 5, wherein the whole area of the multicoat paint systems is overcoated.
7. The process as claimed in any of claims 1 to 6, wherein the multicoat paint systems are overcoated at the defect(s) and also in the entire adjacent area up to a boundary.
8. The process as claimed in any of claims 1 to 7, wherein prior to step (1) the defect(s) is (are) prepared by cleaning and/or abrading.
9. The process as claimed in any of claims 1 to 8, wherein the aqueous basecoat material (A) and its extract or an extract substantially corresponding to it comprise at least one ionically and/or nonionically stabilized polyurethane binder which is saturated, unsaturated and/or grafted with olefinically unsaturated compounds.
10. The process as claimed in claim 9, wherein the aqueous basecoat material (A) and its extract or an extract substantially corresponding to it comprise at least one crosslinking agent.
11. The process as claimed in claim 10, wherein the crosslinking agent(s) is (are) selected from the group consisting of amino resins, blocked polyisocyanates, and tris(alkoxycarbonylamino)triazines.
12. The process as claimed in any of claims 1 to 11, wherein the extract is completely free from pigments.
13. The process as claimed in any of claims 1 to 12, wherein the pneumatic spray application in step (1) is conducted with a spraying pressure of from 2.5 to 5 bar.
14. The process as claimed in any of claims 1 to 13, wherein the film (1) in step (1) is applied in a total wet film thickness such that curing thereof in step (6) results in a dry

film thickness of from 2 to 50 µm.

15. The process as claimed in any of claims 1 to 14, wherein the flashing off and/or drying of the film (1) in step (2) and/or of the film (3) in step (4) is/are accelerated by raising the temperature of the films (1) and/or (3), passing a laminar air flow over the films (1) and/or (3) and/or reducing the humidity in the ambient atmosphere.
16. The process as claimed in any of claims 1 to 15, wherein the clearcoat material or materials in step (5) is or are applied with a spraying pressure of from 2.5 to 5 bar.
17. The process as claimed in any of claims 1 to 16, wherein the the clearcoat film(s) applied in step (5) is (are) flashed off prior to curing in step (6).
18. The process as claimed in any of claims 1 to 17, wherein the clearcoat materials used comprise conventional one-component clearcoat materials, two-component clearcoat materials or dual-cure clearcoat materials.
19. The process as claimed in any of claims 1 to 18, wherein the clearcoat materials correspond substantially or are identical to the clearcoat materials (B) from which the clearcoats (B) of the multicoat paint systems were produced.
20. The process as claimed in any of claims 1 to 19, wherein the one-component clearcoat materials comprise hydroxyl-containing binders and blocked polyisocyanate, tris(alkoxycarbonylamino)triazine and/or amino resin crosslinking agents or comprise as binders polymers containing pendant carbamate and/or allophanate groups and amino resin crosslinking agents, the two-component clearcoat materials comprise hydroxyl-containing binders and polyisocyanates, and the dual-cure clearcoat materials are one-component clearcoat materials or two-component clearcoat materials which additionally contain functional groups which can be activated with actinic radiation and/or additional constituents containing such functional groups.
21. The process as claimed in any of claims 1 to 20, wherein the multicoat paint systems are the OEM finishes on motor vehicles.

22. The process as claimed in claim 21, wherein the motor vehicles are automobiles.
23. The process as claimed in any of claims 1 to 22, carried out on the line at the automaker's plant.